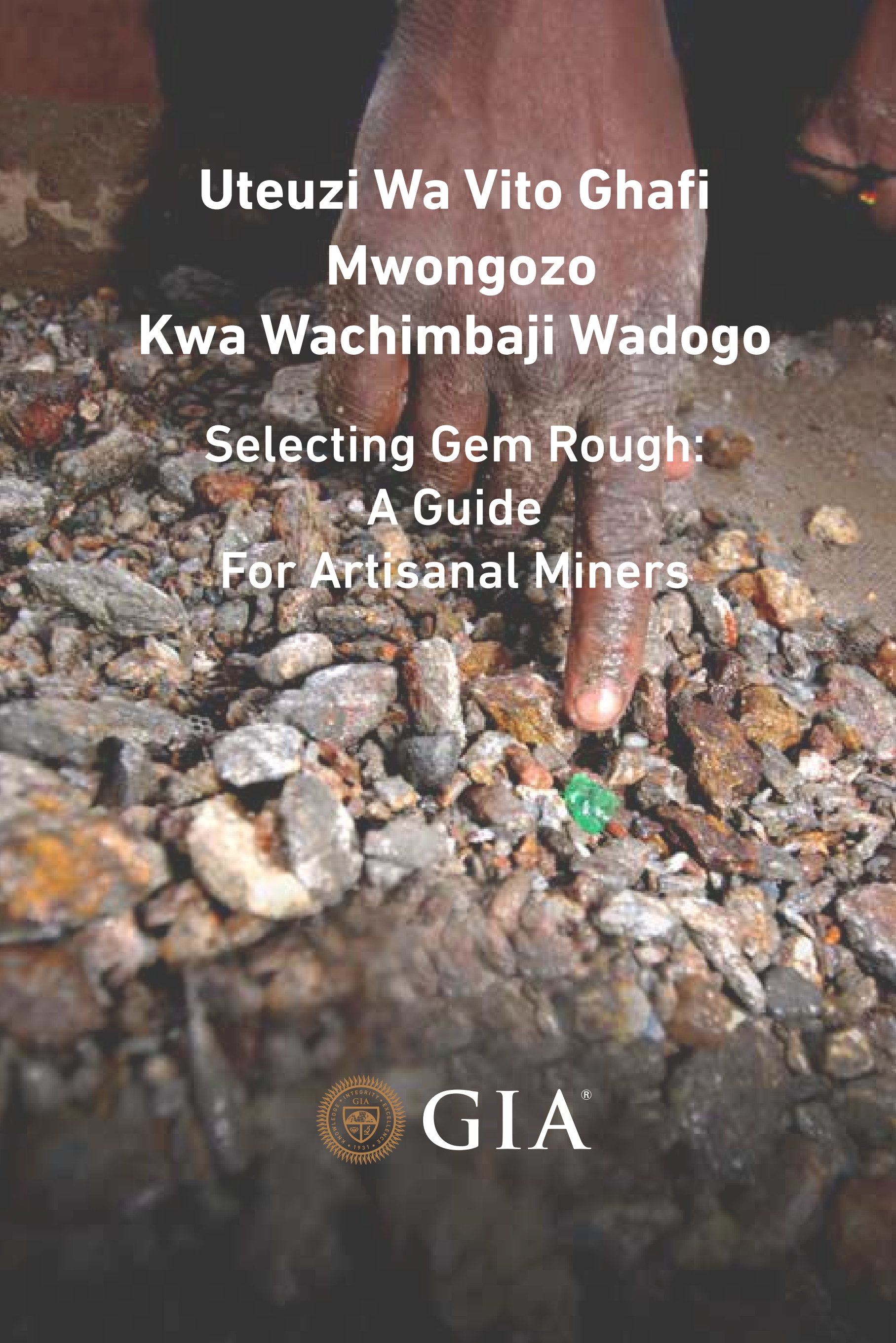


Uteuzi Wa Vito Ghafi Mwongozo Kwa Wachimbaji Wadogo

Selecting Gem Rough: A Guide For Artisanal Miners

GIA

A GIA PUBLICATION

GIA (Gemological Institute of America)

Robert Mouawad Campus
5345 Armada Drive
Carlsbad, California 92008 USA

www.gia.edu

Kimechapishiwa nchini Marekani

Uteuzi wa vito ghafi: Mwongozo kwa wachimbaji wadogo.
Robert Weldon, mhariri-toleo la kwanza.

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Picha ya jalada: Picha ya jalada imepigwa uko Lemshuku,
Tanzania, kwenye shughuli za uchimbaji wa green grossular garnet.
Picha na Robert Weldon/GIA.

Picha ya nyuma ya jalada: picha ya mchimbaji wa rhodolite ilipigwa eneo la
Kangala Tanzania. Picha na: Robert Weldon.

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Cover photo: The image on the cover was taken in Lemshuku, Tanzania, at a green grossular garnet mining operation. Photo by Robert Weldon/GIA.

Back cover photo: The image of the rhodolite garnet miner was taken in Kangala, Tanzania. Photo by Robert Weldon.



GIA makao makuu huko Carlsbad, California. GIA World Headquarters in Carlsbad, California



Ambapo wanafunzi hujifunza kuhusu vito. Where students learn about gems



Ambapo GIA hubainisha vito na huandaa matokeo. Where GIA identifies gems and prepares reports



Ambapo wanafunzi hujifunza kuunda Mapambo. Where students learn to make jewelry

Lengo la GIA ni kuhakikisha imani ya umma kuhusu vito vya thamani na mapambo yake kwa kuweka viwango vya juu zaidi vya uadilifu, taaluma, sayansi na utaalamu kupitia elimu, utafiti, na huduma za maabara na utengenezaji wa vifaa vya maabara.

GIA's mission is to ensure the public trust in gems and jewelry by upholding the highest standards of integrity, academics, science, and professionalism through education, research, laboratory services, and instrument development.

GIA Ilianzishwa mwaka 1931 kuwa taasisi ya kunufaisha umma bila kujipatia faida na inazingatiwa kuwa chimbuko la ufahamu, viwango na elimu kuhusu vito na mapambo yake.

Established in 1931, GIA is a public benefit, non-profit institute considered the leading source of knowledge, standards, and education in gems and jewelry.





Tanzanite (ghafi), vito (vilivyokatwa)
Tanzanite Crystal (Rough)
Gemstones (Cut)

Mwongozo

Guide

Kitabu hiki kitakusaidia kuchunguza na kuelewa vito ghafi. Vito vifuatavyo vinaelezewa kwenye kitabu hiki:

This book is to help you examine and understand rough gem material. The following gemstones are covered in this book:

Beryl – Zumaridi bluu (Aquamarine)

Beryl – Zumaridi kijani (Emerald)

Chrysoberyl

Ruby (Corundum, ruby)

Yakuti (Corundum, sapphire)

Almasi (Diamond)

Garnet – Pyrope

Garnet – Rhodolite

Garnet – Spessartine

Garnet – Tsavorite

Olivine – Peridot

Opal

Amethisto (Amethyst)

Scapolite

Spinel

Topazi (Topaz)

Tourmaline

Tourmaline – Chrome

Tourmaline – Cuprian

Zircon

Zoisite – Tanzanite

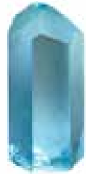
Crystals



Almasi
(Diamond)



Spinel



Beryl – **Zumaridi bluu** (Aquamarine)



Chrysoberyl



Amethisto
(Amethyst)



Zircon



Opal



Garnet – Spessartine

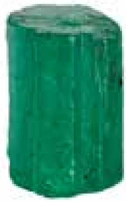


Zoisite – Tanzanite

Crystals



Topazi
(Topaz)



Beryl – **Zumaridi kijani** (Emerald)



Olivine – Peridot



Scapolite



Garnet – Pyrope



Ruby
(Corundum, ruby)



Yakuti
(Corundum, sapphire)



Garnet – Tsavorite



Tourmaline

Usivunje Chembechembe Zilizo Nzuri

Do Not Break Good Crystals





Andaa Kito Ghafi

Prepare the Rough



Usawazishaji

Cobbing or trimming



Chunguza kwa kutumia mwanga

Examine with light



Kito ghafi kilichosafishwa

Cleaned rough

Osha Kito Ghafi

Wash the Rough



Zumaridi bluu ya asilia

Aquamarine from the source



Safisha kito ghafi kwa brashi laini

Clean the rough with a soft brush



Zumaridi bluu iliyosafishwa

Cleaned Aquamarine

Chunguza Pande Zote Za Kito Ghafi

Examine the Rough in Different Directions





Dumbukiza Kito Ghafi Ndani Ya Maji

Put Rough in Water



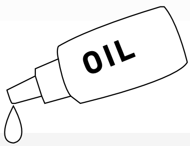




Paka Mafuta Kito Ghafi

Add Oil to Rough Surface

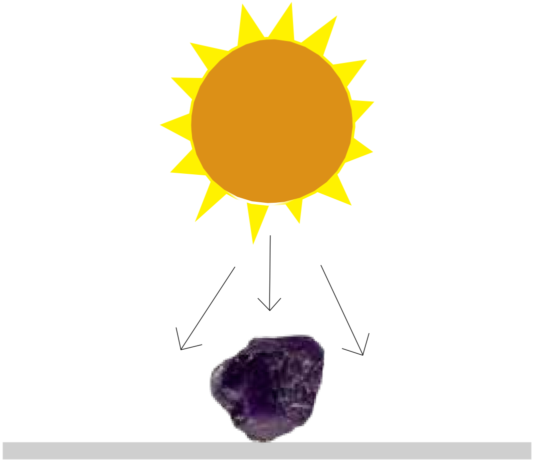






Mwangaza Ulioakisiwa

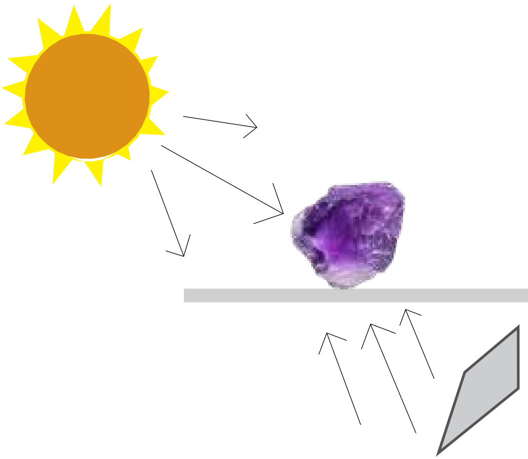
Reflected Light





Mwangaza Uliopitishwa

Transmitted Light





Beryl – Zumaridi bluu (Aquamarine)

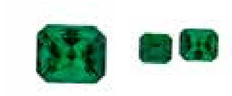






Beryl – Zumaridi kijani (Emerald)









Chrysoberyl



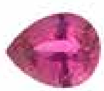




Ruby (Corundum, ruby)



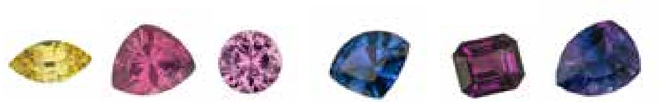






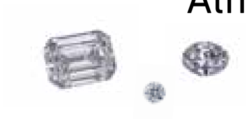


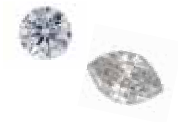
Yakuti (Corundum, sapphire)





Almasi (Diamond)







Garnet – Pyrope







Garnet – Rhodolite





Garnet – Spessartine







Garnet – Tsavorite







Olivine – Peridot

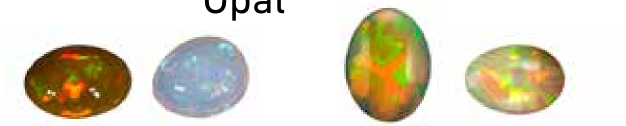








Opal







Amethisto (Amethyst)







Scapolite









Spinel







Topazi (Topaz)







Tourmaline







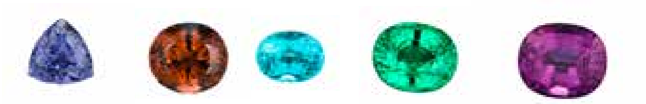
Tourmaline – Chrome







Tourmaline – Cuprian







Zircon







Zoisite – Tanzanite









Vito Vya Mapambo

Ornamental Gemstones



Kabochoni za krisopraso

Chrysoprase cabochons



Umbo la mchan-ganyiko wa ruby na zoisite

Ruby in zoisite carving

Ubora

Quality

★★★★

- Ukubwa
- Rangi iliyokolea
- Chembechembe chache zilizo ndani

- Large
- Strong color
- Few inclusions

★★★

- Ukubwa wa wastani
- Rangi ni nzuri
- Chembechembe nyingi za ndani

- Medium size
- Color is good
- Many inclusions

★

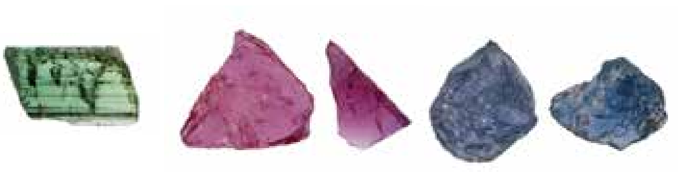
- Rangi isiyokolea
- Chembechembe za ndani au ‘rangi ya maziwa’
- Yaweza kutumiwa kwenye shanga kwenye shanga

- Not strong color
- Many inclusions or “milky”
- May be used for beads

Ubora

Quality







Migao Ya Rangi na Pleochroism

Color Zoning and Pleochroism



Migao ya rangi
Color Zoning



Pleochroism

Mionekano ya rangi kwenye vito kubadilika kutegemea upande wa kutazamia
Color appearance can change with viewing direction

Tofauti Za Rangi Kwenye Vito

Tones in Gems



Vito vinaweza kuwa na rangi ya aina moja hafifu au iliyokolea
Gemstones can occur from light to dark

Kito Ghafi → Kito Kilichochongwa

Rough

Cut





Vito Vya Ajabu

Phenomenal Gemstones



Jicho la paka
Chatoyancy (cat's eye)



Ubadilikaji wa rangi
Color change



Vinyota
Asterism (star)



Schiller



Adularescence

Maumbo Ya Vito Vilivyokatwa

Cut Gemstone Shapes



Duara
Round



Umbo la mpea
Pear



Duara-dufu
Oval



Umbo la moyo
Heart



Zumaridi
Emerald



Takia
Cushion



Geli
Marquise



Umbo la vungunya
Baguette



Mraba
Square



Pembe-tatu
Trilliant



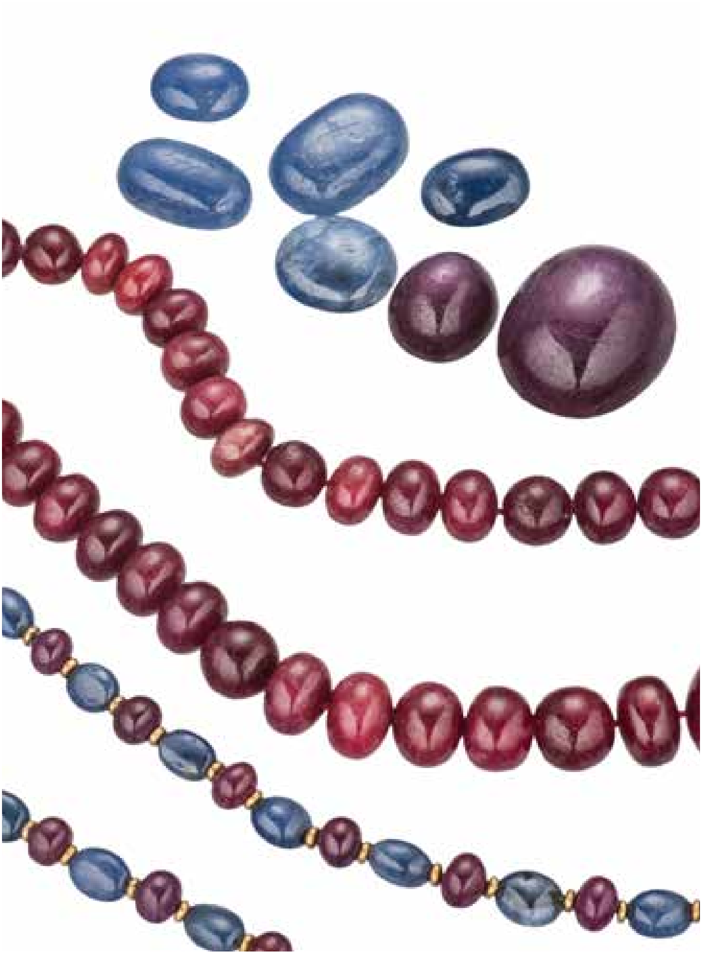
Kidani cha johari
Briolette



Kabuchoni
Cabochon

Shanga na Kabuchoni

Beads and Cabochons



Kito Ghafi → Kito Kilichochongwa

Rough → Cut



Garnet ghafi, karati 19.21

Garnet rough, 19.21 ct



Pasua kito ghafi

Saw the rough



Sehemu mbili zilizopasuliwa

Two sawn parts

Kito Ghafi → Kito Kilichochongwa

Rough → Cut



Pima sehemu uliyochagua, karati 12.90

Weigh the chosen part, 12.90 ct



Tengeneza umbo la mwanzo la kito ghafi

Pre–form the rough



Lainisha sehemu ya juu ili kuunda meza

Make a table facet

Kito Ghafi → Kito Kilichochongwa

Rough Cut



Unganisha kijiti na meza

Dop the table facet



Pavilioni imechongwa

Pavilion faceted



Ng'arisha pavilioni

Polish the pavilion

Kito Ghafi → Kito Kilichochongwa

Rough → Cut



Hamisha kijiti hadi upande mwingine wa kito ili ukate taji na meza ya kito hicho na ung'arishe

Transfer dop to facet and polish crown and table



Chunguza vipande vya taji na meza kabla ya kuondoa kijiti

Examine crown and table facets before removing dop



Kito kilichochongwa, cha karati 2.72. Hii ni asilimia 21 kutoka kwenye kito ghafi chenye kipimo cha karati 12.90

Faceted gem is 2.72 ct. The yield is 21% of the sawn rough: 12.90 ct

Kito Kilichochongwa → Pambo

Cut → Jewelry



Weka kwenye jozi kito kilichochongwa na fremu yenye vijiwe vidogo vya kandokando

Pair the stone with a mounting and side-stones



Tumia nta ilikuweza kushikilia vizuri

Mounting in wax for better handling



Ukaguzi wa shughuli ya uwekaji vijiwe vidogo vva pembeni

Examining the mounting of accent stones

Kito Kilichochongwa → Pambo

Cut → Jewelry



Kuweka kito kwenye fremu

Placing main gem in the mounting



Kurekebisha vishikizi kwenye kito chenyewe

Adjusting the prongs on the main gem



Pambo lililokamilika

Finished jewelry

Shukrani

Kitabu hiki ni kwa kumbukumbu ya Tawfic Farah, aliyekuwa Makamu wa Rais wa Operesheni za Kimataifa uko GIA, aliyesaidia kuanzisha na kuiwezesha taasisi hii kutoa elimu kuhusu vito kwa watu wa bara la Afrika.

Watu wafuatao walichangia yaliyomo, habari na majibu ya utekelezaji kuhusu kitabu hiki.

Bill Barker
Meg Berry
Edward Boehm
Bruce Bridges
Dick Brown
Evan Caplan
Bill Larson
Peter Pereira
Eric Saul
Tom Schneider
Menachem Sevdermish
Steve Ulatowski

Shukrani za pekee kwa: Susan Jacques, Dona Mary Dirlam Al Gilbertson, Nathan Renfro na Ric Taylor wote kutoka GIA, kwa ushauri na uongozi wao. Shukrani nyingi kwa Elizabeth Bokaba, Crystall Nel, Marvin Wambua, Majala Mlagui, Gavin Brott, Lee Johnson na Augustus Pritchett kwa usaidizi wao.

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Mpangilio wa kitabu: Orasa Weldon
Picha: Robert Weldon

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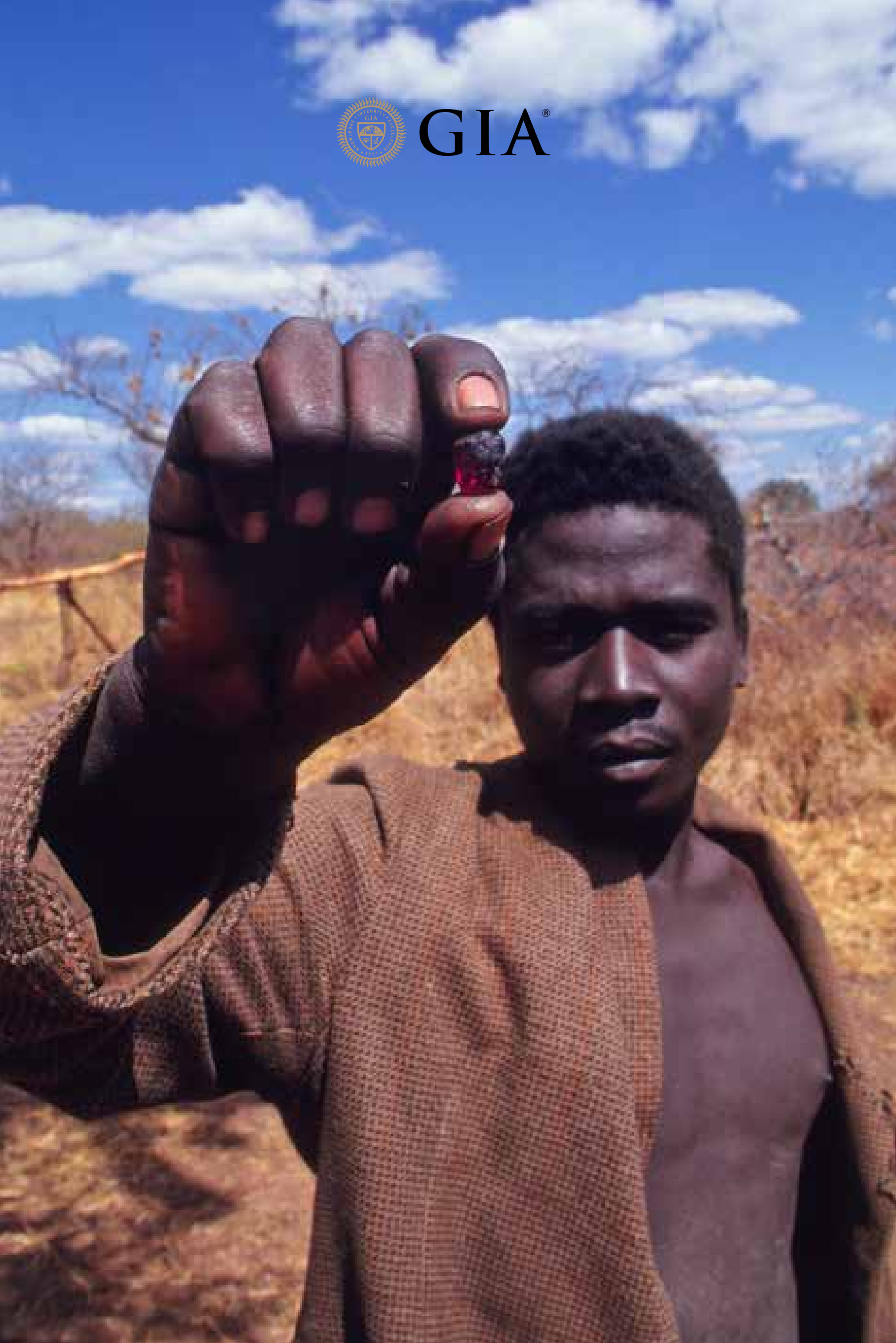
The following people provided content, information and feedback for this book.

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